

# ASSESSMENT SCORING GUIDE

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**4**

**The question or task is completed correctly and contains additional, unexpected, or outstanding features.**

**3**

**The question or task is completed correctly; there are no mistakes.**

**2**

**The answer or task is partly correct; it has no big mistakes.**

**1**

**The answer or task contains big mistakes, or does not answer the question that was asked, but gives information that is related.**

**0**

**The student does not do the question or task, or gives an answer that has nothing to do with what was asked.**

Name \_\_\_\_\_

Date \_\_\_\_\_

# **END-OF-MODULE ASSESSMENT for Magnetism and Electricity**

## **.....**

### **PERFORMANCE ASSESSMENT—Magnetism**

**Directions:** Answer the following questions using the materials on the table.

Find out if two magnets together are stronger than one magnet. Use the washers to help you find out.

1. What did you do?

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2. What did you find out? What evidence do you have?

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Name \_\_\_\_\_

Date \_\_\_\_\_

# **END-OF-MODULE ASSESSMENT for Magnetism and Electricity.**

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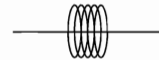
### **PERFORMANCE ASSESSMENT—Electricity**

**Directions:** Answer the following questions using the materials on the table.

Build a circuit that includes three things:

- the compass coiled in wire,
- the switch, and
- the D-cell.

1. Draw a schematic diagram of the circuit you built.  
Use this symbol to represent the compass in coiled wire.



Close the switch and see what happens. Try this several times, changing the direction of the compass needle before you close the switch each time.

2. What happened when you connected the circuit and closed the switch?

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3. Explain why this happened.

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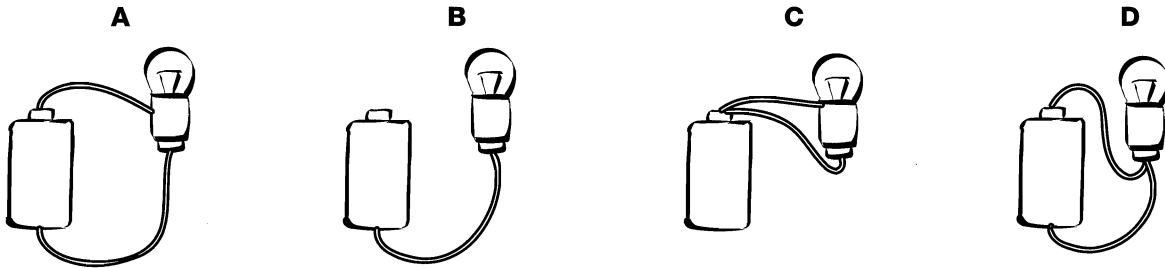
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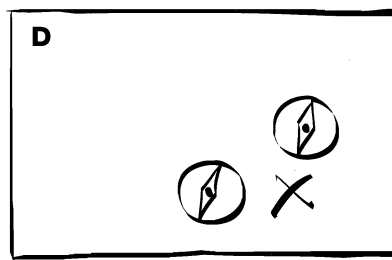
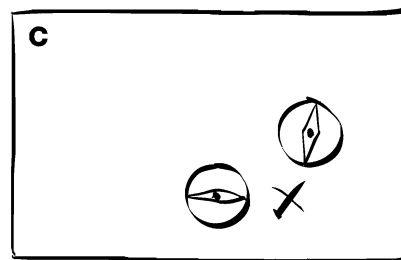
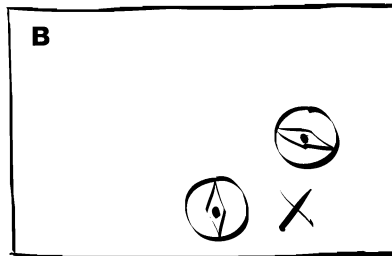
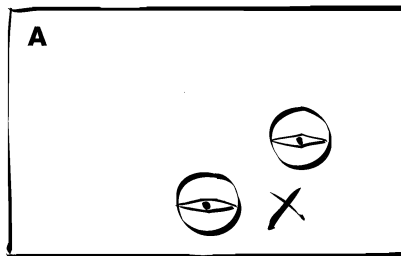
# END-OF-MODULE ASSESSMENT for Magnetism and Electricity

## MULTIPLE-CHOICE/SHORT-ANSWER ITEMS

1. Which of the following bulbs will light?



2. A student placed two compasses on a box to detect a magnet that was hidden inside. If "X" marks the spot where the magnet was hidden, which drawing shows how the compasses looked when she found the magnet?

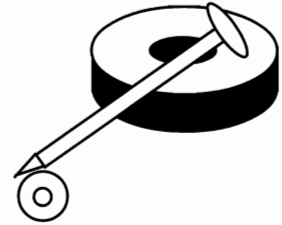


3. One way to make an electromagnet stronger is to
- A. wind the wire more times on the core.
  - B. use thinner wire.
  - C. add another switch.
  - D. wind the wire around a pencil.

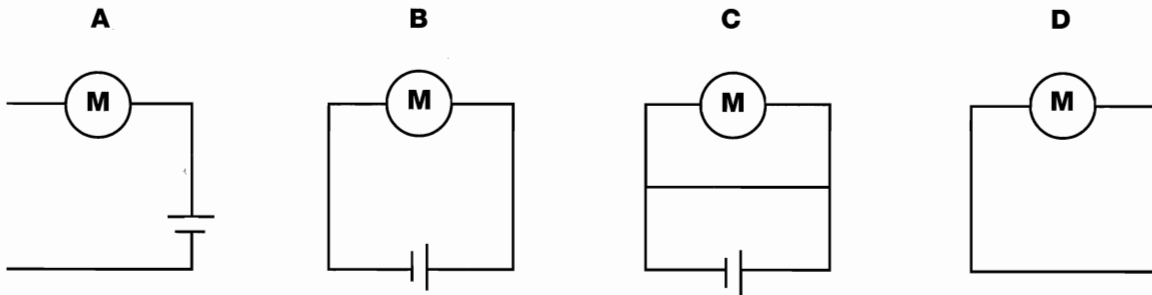
# END-OF-MODULE ASSESSMENT for Magnetism and Electricity

## MULTIPLE-CHOICE/SHORT-ANSWER ITEMS

4. In a complete circuit, the D-cell
- controls the path of electricity.
  - supplies the power to the circuit.
  - reduces the power to the circuit.
  - carries the electricity through the circuit.
5. A nail stuck to a permanent magnet picked up a small washer. The nail could pick up the washer because
- nails have magnetic fields.
  - the nail has electromagnetic frequency.
  - the nail and washer are made of the same thing.
  - magnetism was induced in the nail.



6. Which of these motor circuits will run?



7. In a circuit that tests for insulators and conductors, a lightbulb is used to
- carry the electricity through the circuit.
  - show that electricity is running through the circuit.
  - reduce the power of the electricity in the circuit.
  - turn on the circuit.



8. Which of these materials is **NOT** necessary to build an electromagnet?
- a motor
  - a steel rivet
  - a D-cell
  - wire

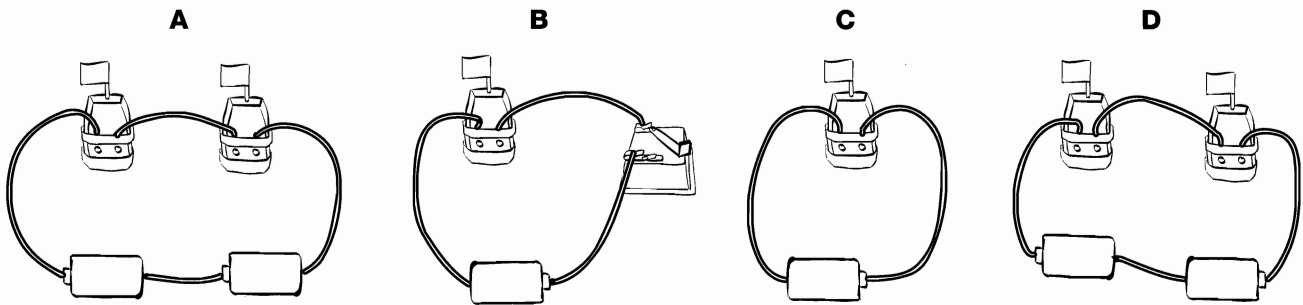
# **END-OF-MODULE ASSESSMENT for Magnetism and Electricity**

## **MULTIPLE-CHOICE/SHORT-ANSWER ITEMS**

9. In a complete circuit, the switch
- A. turns the motor left and right.
  - B. opens and closes the circuit.
  - C. supplies the power to the circuit.
  - D. carries the electricity through the circuit.



10. Which of these motor circuits will **NOT** work?



11. A magnet attracted a paper clip even when a thin piece of cardboard was placed between the magnet and paper clip. But when a sponge was placed between the magnet and the paper clip, the paper clip fell to the floor. This happened because
- A. magnetism goes through cardboard but not through a sponge.
  - B. cardboard conducts magnetism but a sponge does not.
  - C. the distance between the magnet and paper clip was too far.
  - D. the magnetism gets trapped in the holes of the sponge.
12. Which of these is the best definition of an insulator?
- A. An insulator is the component that turns the circuit on and off.
  - B. An insulator is a material that sticks to a magnet.
  - C. An insulator is a material that does not allow electricity to flow through it.
  - D. An insulator is a material that keeps the circuit warm.

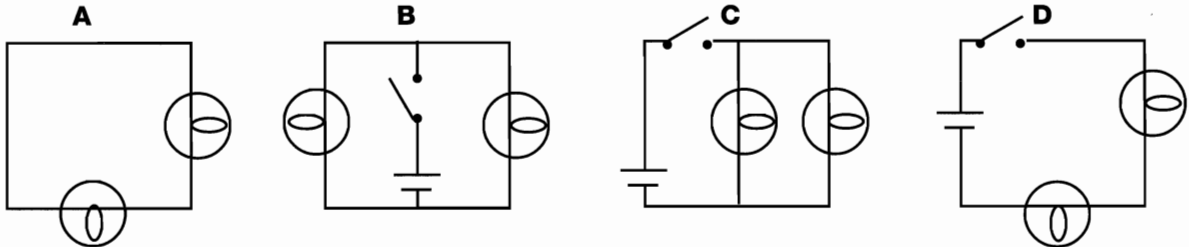
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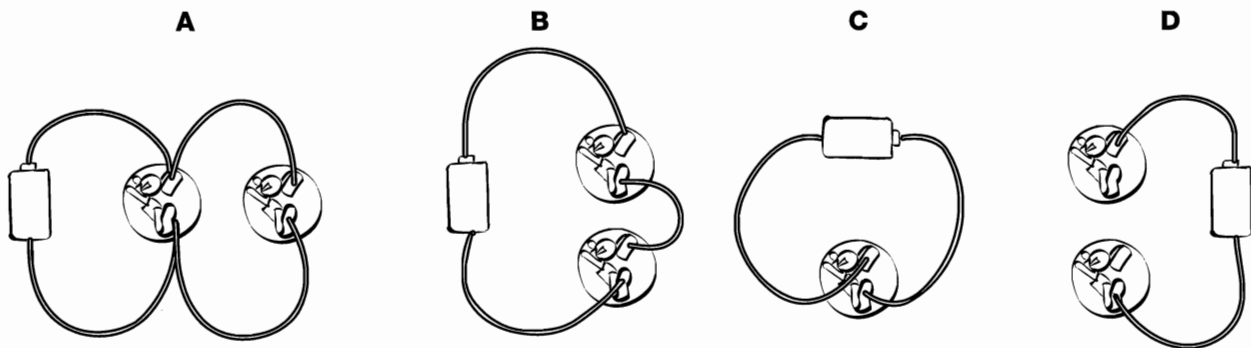
# END-OF-MODULE ASSESSMENT for Magnetism and Electricity

## MULTIPLE-CHOICE/SHORT-ANSWER ITEMS

13. Which of these diagrams shows a series circuit?



14. Which of these drawings shows a parallel circuit?



15. On each line below, write one object from the box that fits the description given (there is more than one right answer).

FABRIC	BASKETBALL HOOP	ALUMINUM FOIL	BASKETBALL	PENNY	WOODEN SPOON	SPONGE
MAGNETITE	SOUP CAN	SCREWDRIVER HANDLE	BOTTLE CAP	ERASER	CARDBOARD	

Sticks to a magnet: \_\_\_\_\_

Does NOT stick to a magnet: \_\_\_\_\_

Conducts electricity: \_\_\_\_\_

Sticks to a magnet but does NOT conduct electricity: \_\_\_\_\_

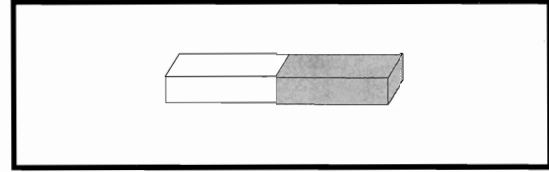
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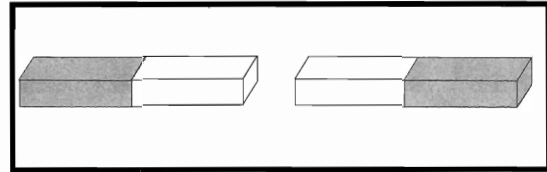
## END-OF-MODULE ASSESSMENT for Magnetism and Electricity

### NARRATIVE ITEMS

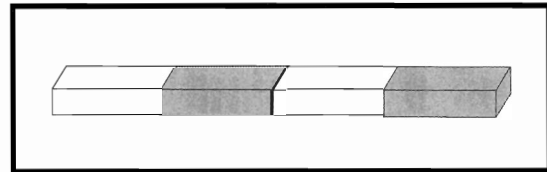
16. A certain kind of bar magnet is darker on one half.



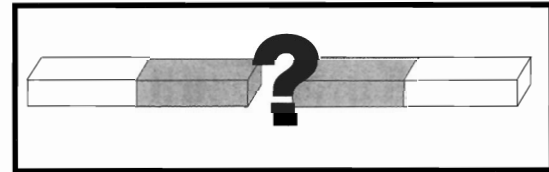
When two of these bar magnets are brought together like this, they repel (push apart).



But when they are brought together like this, they attract (pull together).



- a. What will happen when they are brought together like this?



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- b. Why?

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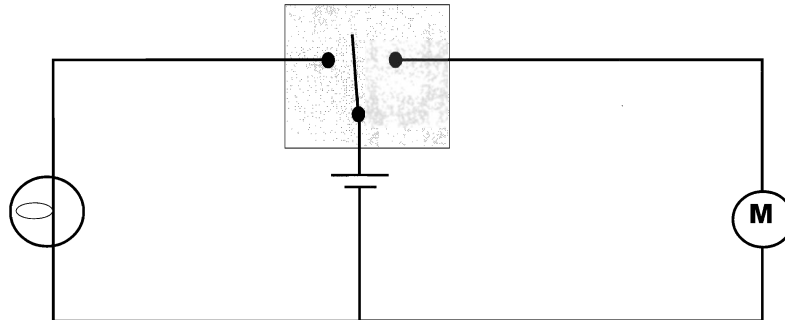
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## END-OF-MODULE ASSESSMENT for Magnetism and Electricity

### NARRATIVE ITEMS

17. A student built a circuit that could light up a bulb **OR** run a motor. She used a special switch. Below is a diagram of her circuit. The switch is in the shaded area.



Explain how this special switch works.

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18. A student was excited because he had heard if you wrap a wire around a steel rivet, you could make a magnet. He went home, found some wire, and wrapped it around a rivet. But when he tried to pick up some small paper clips, nothing happened. If you were this student's friend, what would you tell him to help him solve the problem?

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Name \_\_\_\_\_

Date \_\_\_\_\_

# **PORTFOLIO ASSESSMENT for Magnetism and Electricity**

## **PORTFOLIO CHECKLIST**

Include a piece of work that shows...



Something you learned about magnets.



Something you learned about electric circuits.



Something you learned about electromagnets.



Something that shows you know how to set up an investigation.



Something that shows you know how to give a good explanation and can support it with evidence.



Something that uses what you know from another area of study (reading, writing, math).



Something that shows improvement.



Something that shows your best work.

